W

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,698	01/09/2002	Isaac Bentolila	MET1.0002	7739

23386   7590   11/30/2006

MYERS DAWES ANDRAS & SHERMAN, LLP
19900 MACARTHUR BLVD.,
SUITE 1150
IRVINE, CA 92612

EXAMINER
TRAN, HAI V

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		10/043,698	BENTOLILA ET AL.
		Examiner	Art Unit
		Hai Tran	2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 September 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/10/2006*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 09/06/2006 have been fully considered but they are not persuasive.

Applicant argue (Applicant 's remark; page 8), "... it is respectfully submitted that Grauch' s channel ID, paragraph 56 ..., at minimum does not disclose recording a viewer's monitor behavior with data item variables selected from watch date and watch duration."

In response, the Examiner respectfully disagrees with Applicant because Claim 1 relates to Markush-type claims, see MPEP § 2173.05(h). Therefore, the examiner only needs to consider one of the alternative limitations. In this instant, Grauch meets the claimed limitation "watch channel".

Applicant further argues, "Grauch paragraphs 96, 98 and 99...does not disclose: from server side system inputting historical data information regarding demographic information tagged to the viewer, as claimed. Rather, Grauch paragraphs 96, 98 and 99 mention sending viewer STB timeline to outside sources, rather than inputting historical data information regarding demographic information tagged to the viewer from a server-side system, as claimed."

In response, the Examiner respectfully disagrees with Applicant because Applicant seems to misconstrue Grauch reference. Grauch clearly indicates from the server side (see Fig. 1, 4A-B, and 5) in which the staging server 70 collects historical

data information, including demographic information, received from user for analysis

(see §0081) as described in §0096, 0098 and 0099.

Applicant further argues, "Grauch does not disclose using historical data

information regarding demographic information tagged to the viewer. Rather, Grauch

mentions targeting ads to particular demographic households."

In response, Applicant further again misconstrues Grauch reference. It is

abundantly clear that Grauch by collecting users behavior, Grauch clearly accumulates

historical data information of each user, including user's demographic data (see §0081)

so the system able to at least be able to targeted ads, as Applicant 's self-admitted.

Applicant further argues, "Grauch does not teach inputting program guide

information, as claimed."

In response, the Examiner respectfully disagrees with Applicant because one of

ordinary skill in the art would recognizes that EPG information is created/inputted by the

CATV provider.

Applicant further argues, " Grauch does not disclose the steps of associating the

program guide information with the viewer's monitor behavior, and defining therefrom

knowledge base with demographic cluster information of the viewer, as claimed."

In response, the Examiner respectfully disagrees with Applicant because Grauch

clearly discloses the monitoring of the user selection or interactive with the EPG is done

at the user terminal/receiver, see §0092-0095, thereby collecting a knowledge based of

viewer behavior along with user data, i.e., user demographic information, in which the

receiver gauges against some criteria for statistical purpose, as disclosed in § 0091-0094.

Applicant further argues, "Fig. 7 does not disclose states or state transitions in state machines, as claimed...Grauch does not event mention state machines."

In response, the examiner respectfully disagrees with Applicant because Grauch Fig. 1 and 2 clearly discloses various states machine, i.e., Server 70, STB 30, because Grauch state machine, at least stores information about the past, i.e., it reflects the input changes from the system start to the present moment, or having an action of monitoring activities that user interacts with the EPG at a given moment, see § 0091-0095. As such the Examiner maintains the rejection.

Claim 6, Applicant argues (Applicant remark page 15-17), "...it is well settled that in order for a modification or combination of the prior art to be valid, the prior art itself must suggest the modification or combination, "...invention cannot be found obvious unless there was some explicit teaching or suggestion in the art to motivate one of ordinary skill to combine elements so as to create the same invention."...Neither of the references suggest the motivation to modify or combine the references as proposed by the Examiner. Nor would one or ordinary skill in the art combine Grauch and Konig which are not only in non-analogous art, but also fail to teach the claimed limitation alone or in combination."

In response to applicant's argument that Konig and Grauch are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's

endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Grauch and Konig relate to tracking user/subscriber use of network applications by monitoring and collecting user information so the system able to group user and group of users to different patterns by using different model of calculation so to personalize user preference based on user/subscriber interest. As such, both Konig and Grauch are analogous art.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Konig provides abundantly suggestions why one of ordinary skill in the art would modify Grauch with the teaching of Konig , see Col. 3, lines 45-Col. 4, lines 16 in which Konig discloses one of the advantage is to provide a method for predicting user interest in an item that incorporates the opinions of similar user without requiring storage and maintenance of an item profile .

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-16 define a computer-readable medium embodying functional descriptive material in which the computer program itself is not a process.   Therefore, the claimed invention is directed to non-statutory subject matter. Moreover, the claim does not define a computer-readable medium and is thus non-statutory for that reason (see USPTO OG Notices: 22 November 2005; Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility; Annex IV –Computer-Related Nonstatutory Subject matter).

The Examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory.

For example, the claimed "a computer-readable medium that stores thereon a plurality of processor-executable instructions which when executed by a processor" should be changed to the following:

-- a computer-readable medium **encoded with a plurality of processor-executable instructions capable of being executed by a processor** --

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-5, 8-13, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated

by Grauch (US 2005/0235318).

Claim 1, Grauch discloses a method of determining a television viewer's

viewing habits comprising:

recording a viewer's monitor behavior with data item variables selected from

the group consisting of watch channel (channel ID, paragraph 56);

from a server-side system inputting historical data information regarding

demographic information tagged to the viewer (the MKIS data base stores'

demographics, § 96, particular ads are targeted to particular demographic

households which demonstrates that the historical information is tagged to the

viewer of that household, otherwise the targeted ad would not be displayed to the

intended viewer, §98-99; Grauch clearly indicates from the server side, see Fig. 1,

4A-B, and 5, in which the staging server 70 collects historical data information,

including demographic information, received from user for analysis (see §0081), as

described in §0096, 0098 and 0099)

inputting program guide information (collecting the EPG information is part of

the journal collection data that creates a model of the viewer behavior, paragraph

60); and

at a client-side system associating the program guide information with the

viewer's monitor behavior and defining therefrom a knowledge base with

demographic cluster information of the viewer in terms of statistical state machine

transition models (The event records are collected and stored in buffers at the client-

side, paragraph 65, the data is then uploaded, paragraph 68, the uploaded event

data is then merged and parsed with metadata in order to create an accurate time

line, paragraphs 86-88, once the data is uploaded analysis may be run for a

particular demographic cluster paragraph 98. Grauch clearly discloses the

monitoring of the user selection or interactive with the EPG is done at the user

terminal/receiver, see §0092-0095, thereby collecting a knowledge based of viewer

behavior along with user data, i.e., user demographic information, in which the

receiver gauges against some criteria for statistical purpose, as disclosed in § 0091-

0094).

Claim 2, Grauch discloses a method wherein the step of defining the

knowledge base comprises calculating a parameterized transition matrix defining the

viewer's viewing habits, the transition matrix containing information of program

transitions initiated by the viewer (Clickstream Data 80 Figure 7 and paragraph 95).

Claim 3, Grauch discloses a method of defining at least two concurrent transition matrices including a channel matrix (Clickstream Data 80 Channel ID, Figure 7) and a genre matrix (Content ID Prevue Guide Data 82, Figure 7).

Claim 4, Grauch discloses a method which comprises defining the transition matrix as a two-dimensional matrix with transitions from television channels to television channels in temporal form (Figure 7 and paragraph 95).

Claim 5, Grauch discloses a method which comprises providing feedback information with the viewer's monitor behavior by recording a click stream (receiving messages from the user input device, paragraph 36 and log all events, paragraph 40).

Claim 8, Grauch discloses a the computer-readable medium (paragraph 33) having stored thereon a plurality of processor-executable instructions for implementing a function of:

capturing state transitions (Figure 7) by defining monitor behavior in a plurality of statistical state machine families each representing a given viewer or demographic group viewing behavior (statistically provisioned paragraph 65, and paragraph 95); combining the statistical state machine families into global statistical state machines defined in a global probability density function (100 Fig. 1 and event records are collected and analyzed paragraph 81),and outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server (the system targets demographic groups that use the system paragraph 98 - 99).

Claim 9, Grauch discloses state transitions represent a television viewer's monitor behavior and the statistical state machines are selected from the group consisting of watch start time (Figure 7 and paragraph 95).

Claim 10, Grauch discloses the global profile that represents demographic cluster information of the viewer in terms of the statistical state machine transition models (Figure 7 and the information collected is what the system uses to determine demographic groups, paragraph 95, and particular demographic group means the same thing as a cluster of users paragraph 98).

Claim 11, Grauch discloses the computer-readable medium wherein the state machines are defined in a parameterized transition matrix defining the viewer's viewing habits, the transition matrix containing information of program transitions initiated by the viewer (clickstream Data 80 Figure 7 and paragraph 95).

Claim 12, Grauch discloses the computer-readable medium wherein the transition matrix is one of at least two concurrent transition matrices including a channel matrix (Clickstream Data 80 Channel ID, Figure 7) and a genre matrix (Content ID Prevue Guide Data 82, Figure 7).

Claim 13, Grauch discloses the computer-readable medium wherein the transition matrix is a two-dimensional matrix with transitions from television channels to television channels in temporal form (Figure 7 and paragraph 95).

Claim 16, Grauch further discloses at a client-side system associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic cluster information of the viewer in terms of

statistical state machine transition models (The event records are collected and

stored in buffers at the client-side, paragraph 65, the data is then uploaded,

paragraph 68, the uploaded event data is then merged and parsed with metadata in

order to create an accurate time line, paragraphs 86-88, once the data is uploaded

analysis may be run for a particular demographic cluster paragraph 98. Grauch

clearly discloses the monitoring of the user selection or interactive with the EPG is

done at the user terminal/receiver, see §0092-0095, thereby collecting a knowledge

based of viewer behavior along with user data, i.e., user demographic information, in

which the receiver gauges against some criteria for statistical purpose, as disclosed

in § 0091-0094).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 6, 7, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Grauch in view of Konig (6,981,040).

Claims 6 and 14, Grauch fails to specifically teach the method and

corresponding computer readable medium which comprises parameterizing the

viewer's monitor behavior with a double random pseudo hidden Markov process,

and defining a low-level statistical state machine modeling a behavioral cluster and a

top-level statistical state machine with active behavioral clusters and an interaction

between the active behavioral clusters.

Konig, in an analogous art, discloses parameterizing the viewer's monitor

behavior with a double random pseudo hidden Markov process (Hidden Markov

Model, column 28 lines 14-18), and defining a low-level statistical state machine

modeling a behavioral cluster (any individual user model can also apply to a

cluster of users, column 14 lines 61-52, user response is monitored, column 27

lines 1-11 and column 27 lines 49-55), and a top-level statistical state machine with

active behavioral clusters and an interaction between the active behavioral clusters

(the documents are evaluated using the user model to estimate the user interest

column 29 lines 49-52). Therefore, it would have been obvious to one of ordinary

skill in the art to modify Grauch's system to include parameterizing the viewer's

monitor behavior with a double random pseudo hidden Markov process, and defining

a low-level statistical state machine modeling a behavioral cluster and a top-level

statistical state machine with active behavioral clusters and an interaction between

the active behavioral clusters, as taught by Konig, for the benefit of allowing the

system to make accurate models of viewer usage in order to target the most relevant

material towards the desired user or cluster of users, as suggested by Konig, see

Col. 3, lines 45-Col. 4, lines 16.

Claims 7 and 15, Grauch discloses a method and corresponding machine

readable medium which comprises defining a plurality of dimensions and

determining parallel statistical state machine transition events in at least two of three

state categories including channel, genre, and title (channel ID and content ID

Figure 7 and paragraph 95).

Grauch fails to specifically teach the double random process.

Konig, in an analogous art, discloses   the   double   random   process

(Hidden Markov Model, column 28 lines 17-18). Therefore, it would have been

obvious to one of ordinary skill in the art to modify Grauch's system to include the

double random process, as taught by Konig, for the benefit of making one overall

probabilistic decision when constructing user models, as suggested by Konig, see

Col. 3, lines 45-Col. 4, lines 16.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (571) 272-7305. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HT:ht
11/22/2006

HAI TRAN
PRIMARY EXAMINER